

SPLIT

Work Order ID 110741

February-13-14 1:13:38 PM

110741

Page 1

Item ID: D3405-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Gh Lug

Start Date: 07/01/2014 Start Qty: 40.00

40

Cust Item ID:

Required Date: 07/01/2014 Req'd Qty: 40.00

40

Customer:

Reference:

Approvals: Process Plan: *(Signature)*

Date: 14-02-13

Tooling:

Date:

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D3405	Rev B								

100

100

Waterjet

FLOW CNC Waterjet

Memo

0.00

CMG 2/18/14

1-Cut as per Dwg D3405

Dwg Rev: *B*

Prog Rev: *B*

2-Deburr if necessary

ISSUE PO *AD 23011*

POSSIBLE SUPPLIER LOEBSACK WATERJET

105

105

Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

Memo

0.00

FEB 11/14 (4)

DQA:

Date: 14/07/11

QA Closed: ~~11/11/2018~~

Date: 4/7/11



WORK ORDER NON-COMPLIANCE / UPDATE

Work Order update only

Work Order: <u>110741</u>				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework <input checked="" type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>		Engineering <input type="checkbox"/>		
				Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>		Quality <input type="checkbox"/>		
				Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>		Other <input type="checkbox"/>		
NCR No. <u>14-4018</u>				Suspected Unapproved <input type="checkbox"/>	Large Fab <input checked="" type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>				
Root Cause		Date	Step	Qty	Description of work order update or non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design					Found on OT# +12 Pcs that there are Pin holes comm through the parts.		DAS 12 9:00	Strip all P/C from. Parts OT# +12 NOT fully REQUIRED		DAS 27 9:00	
Doc/Data					Pin holes are caused by small pin hole in the weld.		14/6/18	Pass board of welds Along each end of parts A/p Per assembly	14/6/18	14/6/18	5 14/6/18
Equip/Tooling					RC. weld wasn't fused in all location.			Re Powder coat as per OT# 2005 M1240959 Start 9:00 Fin 9:00. Temp 800° Temp -	14/6/18 DAS 34 9:00	(3)	
Handling/Pre Material											
Operator											
Offset/Setup											
Process	<input checked="" type="checkbox"/>	14/6/18	180								
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending		Bend		Folio/Program		Outside Dimensions		Pressure/Forced			
Centre Not Concentric		BOM/Route		Grain		Over/Under tolerance		Set-up			
Cracks		Broken/Damage/Defect		Hardware		Part Incorrect		Temperature/Cure			
Crimp/Kink/Ripple/Wave		Burrs		Inspection Incomplete/Unqualified		Part Lost/Missing		Weld			
Cuffs		Contamination		Instructions Incomplete/Unclear		Part Moved		Wrong Stock Pulled			
Crushing		Countersink		Misaligned/off center		Positioned Wrong					
Heat Treat		Cut Too Short		Mislabeled		Power Loss/Surge					
Inspection Strip in Tube		Drawing		Misread							
Marks/Chatter		Drill Holes		Off-set							
Turning Sequence		Finish		Out of Calibration							
Wave/Twist in Tube		Fit/Function		Out of Sequence							

Work Order ID 110741

February-13-14 1:13:38 PM

110741

Page 5

Item ID:	D3405-041	Accept	*N900040100*	Setup	Start	*NS1*	
Revision ID:							
Item Name:	Gh Lug					*NS2*	
Start Date:	07/01/2014	Start Qty:	40.00	*40*	Cust Item ID:		
Required Date:	07/01/2014	Req'd Qty:	40.00	*40*	Customer:		
Reference:							
Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
						Stop	
	QC:	Date:	SPC (Y/N):	Date:			*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	0.00							
Quality Control									

MLJ 14-07-09

④ 14-79

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>			Engineering <input type="checkbox"/>		
Part No. _____			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>			Quality <input type="checkbox"/>		
NCR No. _____			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>			Other <input type="checkbox"/>		
Suspected Unapproved <input type="checkbox"/>			Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>						
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design <input type="checkbox"/>											
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Handling/Pre <input type="checkbox"/>											
Material <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Offset/Setup <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Transport <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
FAULT CATEGORY											
Landing Gear			General								
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>					Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>			
Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>					Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>			
Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>					Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>			
Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>					Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>			
Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>					Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>			
Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>					Positioned Wrong <input type="checkbox"/>				
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>					Power Loss/Surge <input type="checkbox"/>				
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>									
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>									
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>									
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>									
<hr/>											

Picklist Print

February-13-14 1:13:42 PM

Page 1

Work Order ID: 110741

110741
D3405-041

Parent Item: D3405-041

Parent Item Name: Gh Lug

Start Date: 07/01/2014

Required Date: 07/01/2014

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A05.09.01 New issue KJ/JLM
IPP B 09.01.28 rev.B drawing EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3405-041P		Purchased		No			Each	0.0000		40			**
Gh Lug													
D3404-1		Manufactured		No		100	Each	14.0000	1	40			**
GHW/ Lug													
D3405-041P				110741		07/01/2014		40		40		EL 146-19	
D3404-1				110307		07/01/2014		11		11		EL 146-19	

Location	Loc Qty	Loc Code
WA001	14	
108099	3	
110307	11	

D3405-1F as per p/o.

X40

P-014/4/14 (40)

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
Part No. _____			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
NCR No. _____			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>							
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Set-up <input type="checkbox"/>							
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>							
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Weld <input type="checkbox"/>							
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>							
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>								
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>								
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Other <input type="checkbox"/>								
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>									
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>									
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>									

DART AEROSPACE LTD	Work Order:	110741
Description: GHW Lug	Part Number:	D3405-1
Inspection Dwg: D3405 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

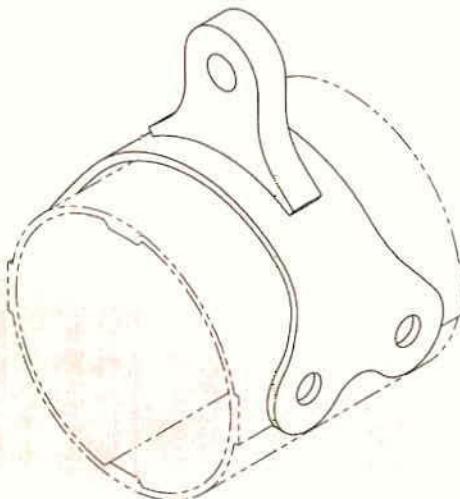
四

Measured by:	<i>mm</i>	Audited by:	<i>27 B-59</i>	Prototype Approval:	N/A
Date:	<i>14/04/16</i>	Date:	<i>14/4/17</i>	Date:	N/A

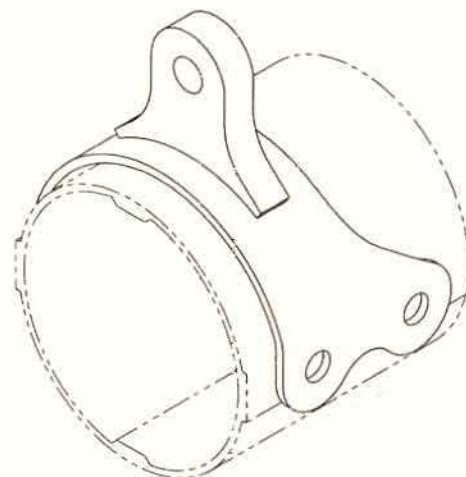
Rev	Date	Change	Revised by	Approved
A	08.11.28	New Issue P/O D3405-041	KJ/EC	<i>[Signature]</i>
B	09.05.04	Dimensions update per Dwg Rev. B	KJ/DD	<i>[Signature]</i>

ITEM No.	QTY. -041	QTY. -043	PART NUMBER	DESCRIPTION
1	X		D3405-041	LUG ASSEMBLY
2		X	D3405-043	LUG ASSEMBLY
11	1	1	D3404-1	GHW LUG
12	1		D3405-1	GHW BRACKET
13		1	D3405-3	GHW BRACKET

B



D3405-041 LUG ASSEMBLY
(SKID TUBE SECTION SHOWN
FOR REF ONLY)



D3405-043 LUG ASSEMBLY
(SKID TUBE SECTION SHOWN
FOR REF ONLY)

110741MLJ
14-01-08

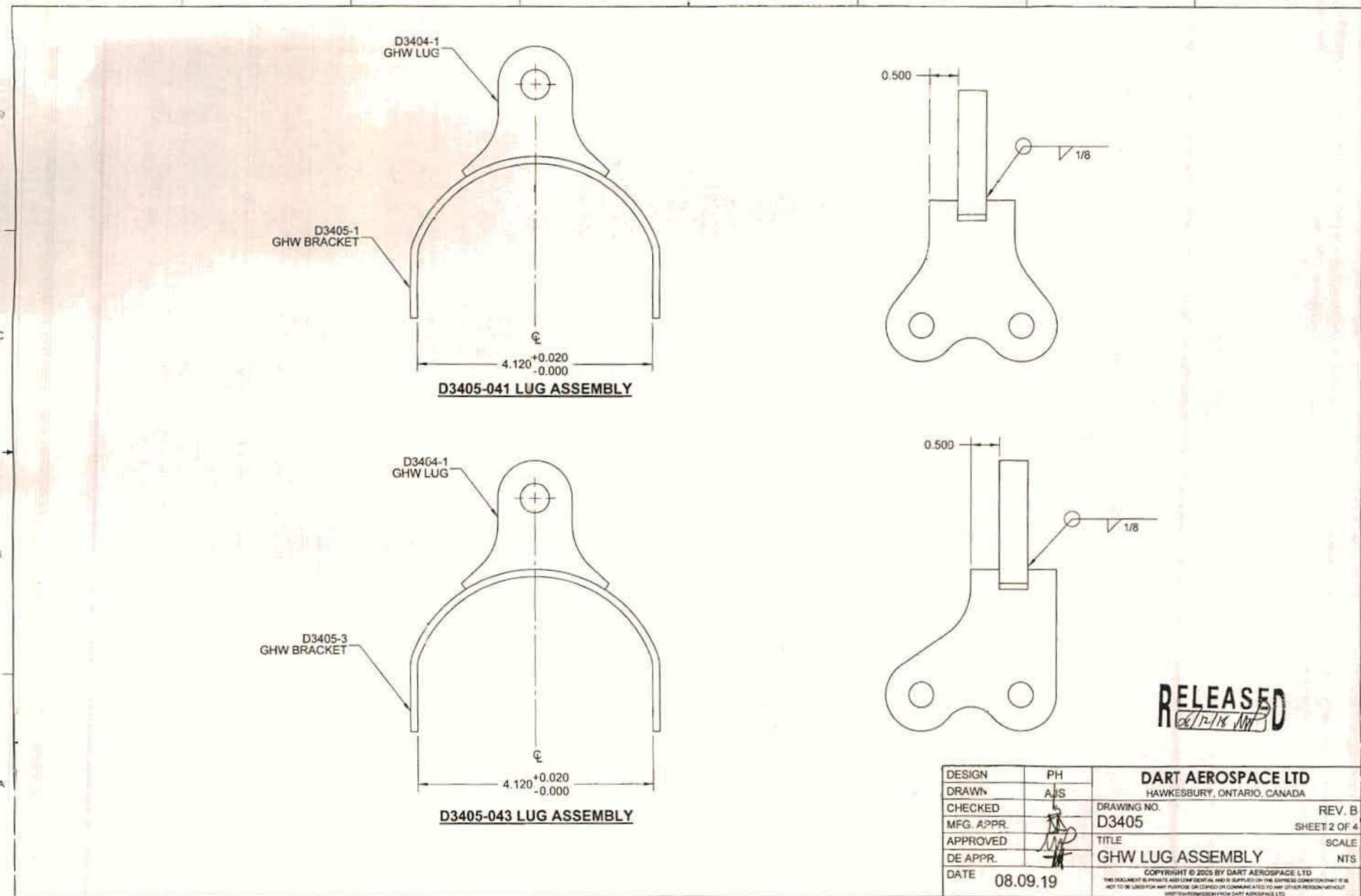
RELEASED
01/21/18 MPA

B	DRAWING REDRAWN IN SOLIDWORKS WITH CURRENT STANDARDS AND TRANSFERRED TO "T" SIZE BORDER. FLAT PATTERNS FOR -1 & -3 INCREASED IN LENGTH TO PREVENT FOULING AT INSTL (SEE PAR198). SHEETS 3 & 4 ZONE A6 4.120 DIM WAS 4.100.			AJS	08.09.19
A	NEW ISSUE			PH	05.03.08
REV.	DESCRIPTION			BY	DATE
DESIGN	PH	DART AEROSPACE LTD			
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.	REV. B		
MFG. APPR.		D3405	SHEET 1 OF 4		
APPROVED		TITLE	SCALE		
DE APPR.		GHW LUG ASSEMBLY	NTS		
DATE	08.09.19			COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT CONTAINS TRADE SECRET INFORMATION WHICH IS THE PROPERTY OF DART AEROSPACE LTD. NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

NOTES:

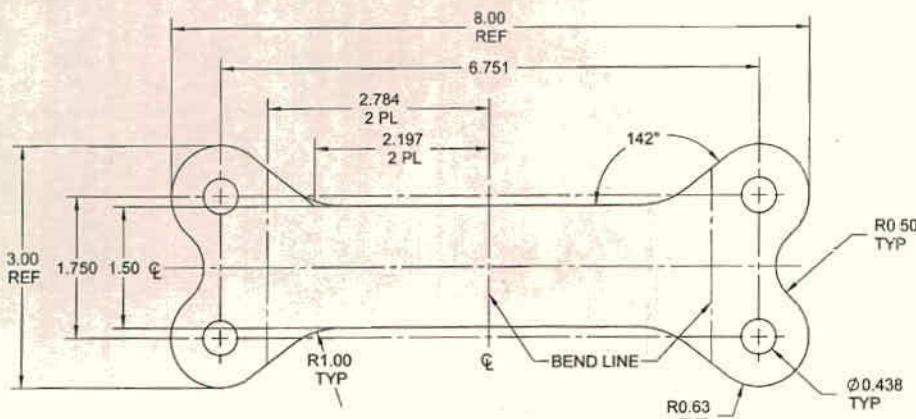
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT ASSEMBLY WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3405-041" USING FINE POINT PERMANENT INK MARKER
IDENTIFY WITH DART P/N "D3405-043" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: -041, 0.85 lbs
-043, 0.87 lbs

8 7 6 5 4 3 2 1

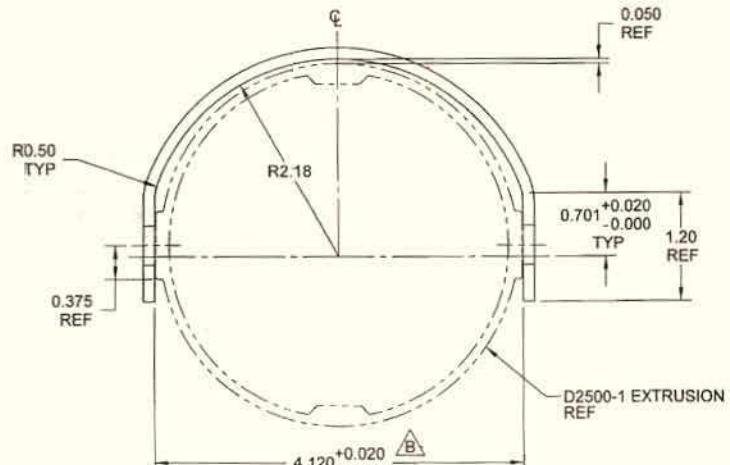


DESIGN	PH	DART AEROSPACE LTD			
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.			
MFG. APPR.		REV. B			
APPROVED		D3405			
DE APPR.		SHEET 2 OF 4			
DATE	08.09.19	TITLE			
		SCALE			
		NTS			
GHW LUG ASSEMBLY					
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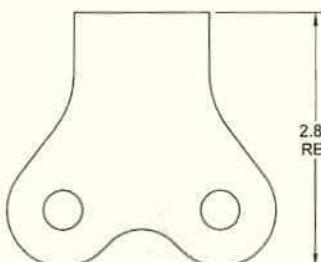
RELEASED
07/21/18 MTP



D3405-1F GHW BRACKET FLAT PATTERN



D3405-1 GHW BRACKET
(MAKE FROM D3405-1F)



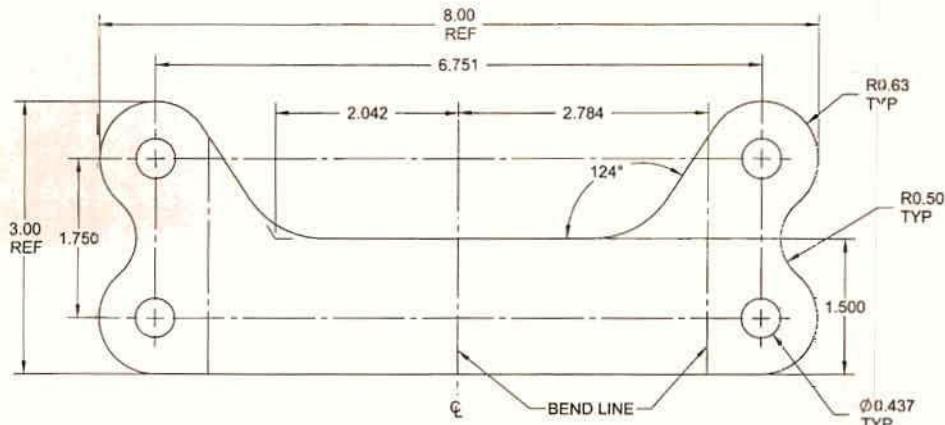
SIDE VIEW FOR REF ONLY

NOTES:

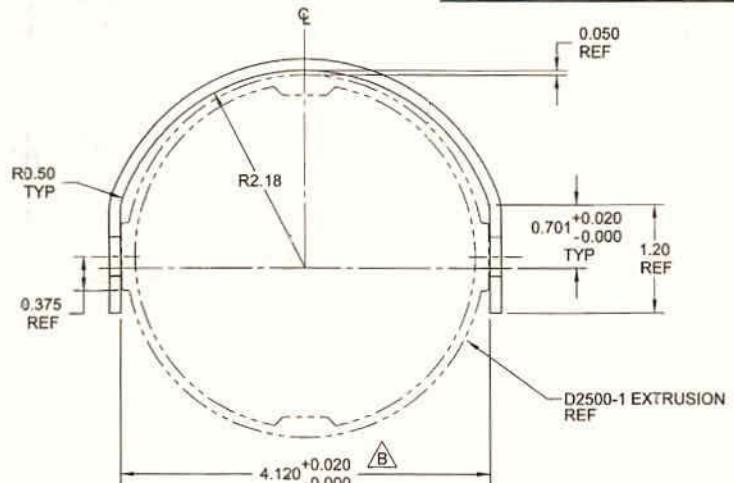
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 11 GAUGE (0.125 THICK)
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524
REF. DART SPEC. M304S11GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	ABJ	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	
MFG. APPR.		REV. B	
APPROVED		D3405	
DE APPR.		SHEET 3 OF 4	
DATE	08.09.19	TITLE	
		SCALE	
		GHW LUG ASSEMBLY	
		NTS	
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RELEASED
08/09/19



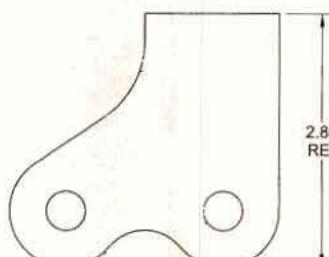
D3405-3F GHW BRACKET FLAT PATTERN



D3405-3 GHW BRACKET
(MAKE FROM D3405-3F)

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 11 GAUGE (0.125 THICK)
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524
REF. DART SPEC. M304S11GA
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QS-018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A



SIDE VIEW FOR REF ONLY

RELEASED
[Signature]
08/12/13 MV

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	
MFG. APPR.	<i>[Signature]</i>	REV. B	
APPROVED	<i>[Signature]</i>	D3405	SHEET 4 OF 4
DE APPR.	<i>[Signature]</i>	TITLE	SCALE
DATE	08.09.19	GHW LUG ASSEMBLY	
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO23011

Purchase Order Date 2/14/2014

PO Print Date 2/14/2014

Page Number 4 of 9

Order From : VC-LWC001
LOEBSACK WATERJET CANADA LTD.
55 NORTHFIELD DR. E.
P.O.BOX 339

WATERLOO, ONTARIO N2K 3T6

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone

Ship To Contact
Ship To Phone
Ship Via: FedEx PI collect
Ship Acct:

Buyer Michael Gregoire
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

11 D3405-1F

GHW/ Bracket

3/28/2014
Yes
3/28/2014

40.00
Each

Line Total:

\$479.00

Manufacture as per drawing D3405 rev.b
B110741

12 D4150-3P

Arm Plate

3/28/2014
Yes
3/28/2014

40.00
Each

Line Total:

\$416.00

Manufacture as per drawing D4150 rev.b
B111062

13 D4151-1P

Lower Hardpoint Plate

3/28/2014
Yes
3/28/2014

40.00
Each

Line Total:

\$192.00

Manufacture as per drawing D4151 rev.c
B112572

PO Instructions: PROCUREMENT QUALITY CLAUSES

A005 RIGHT OF ENTRY

A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)

A012 CHEMICAL AND PHYSICAL TEST REPORTS

A016 PERSONNEL QUALIFICATION

A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A042 DART NOTIFICATION BY SUPPLIER

Note:



55 Northfield Dr., E., Box 339
Waterloo, On. N2K 3T6
(519)570-6590
F. (519)893-4252

Certificate of Compliance

Sold To: DART Aerospace

Purchase Order Nu ID PO23011

Item	Quantity	Part Number	Revision	Description	Mtl. / Thk.	HT Number
18(4)	60	D3065-1	b	STEP SPACER	2024-T3 / 0.040"	663172A5
19(5)	100	D3065-3	b	STEP SPACER	2024-T3 / 0.040"	663172A5
21(7)	60	D3065-7	b	STEP SPACER	2024-T3 / 0.040"	663172A5
20(6)	110	D3065-5	b	STEP LEG	5052-H32 / 0.080"	3C5291
9(8)	20	D4093-1	d	BRACKET	6061-T6 / 0.750"	37797032
10(9)	10	D4093-3	d	BRACKET	6061-T6 / 0.750"	37797032
8(2)	20	D3319-1	c	WEARPLATE	CRS 18GA / 0.048	3683T3-51
7(1)	20	D3319-3	c	WEARPLATE	CRS 18GA / 0.048	3683T3-51
22(3)	120	D3537-1F	c	WEARPAD	304 SS / 0.063"	A1303988
11(10)	40	D3405-1F	b	GHW BRACKET	304 SS / 0.120"	350420

DAS
27
9-09

This is to certify that the whole of the supplies detailed hereon has been inspected, tested, packed, and unless otherwise stated, conform in all respects with the requirements of the contract or order.

Name: Derek Loebssack

Title: President

Sign:

Dated:

07-14-04

**ESSENKRUPP MATERIALS NA
M. WOODTURNING LTD**
ALUMINUM PLATE 6061-T651
.750" THICK X 48.5000" X 96.5000"
PART NO.

PO/REL FRED

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-851084-001

19Nov13

Page 1/1

TEST CERTIFICATE



Certificate No : 1209192551

HEAD OFFICE: Meesha Nethanya Rd., Petah Tikva 42210, Israel
Hilamin Ltd. Reg. No. 154-001292/AJ VAI Reg. No. 4850-145014
Telephone: +972 3 5568133 Telex: +972 11 384 4030

BUYER: TA CHEN INTERNATIONAL, INC 5855 ODISPO AVE LONG BEACH CA 90805	Hulamin Lot No: HL018523 Lot No: 17/09/03C8 PAList No: 2/1161413 Release No: RE/088556	Product: PLATE HEAT TREATED FINISHED, 8D81-T651 0.75" x 48.5" x 98.5"
		Dimension: 0.75" x 48.5" x 98.5"
		Alloy - Temper: 8D81 - T651
	Cust Order No: N03100-8 HULAMIN Order No: 181742E Item Part: 1/1	Certificate No: 1209182682 Cust Ref/Part No: Combined PAList No: R/2184
Case No: PV1671		

Page No. 2 REVIEW

MECHANICAL TEST RESULTS

Lot No.	Cast No.	Metalid	Alloy	Spec No	Mechanical Properties							
					Yield Strength (Ksi)	UTS (Ksi)	Elongation A50 (%)	Braking (%)	TestDate	Gauge Length (inches)	Bend Test	Actual Gauge (inches)
Spec					Min Max	35.1	42.0	9				0.75 0.751
17/09/032C8	VAST	37797032	6061	1	41.6	46.7	15		07/09/12	2		0.765
				2	41.6	46.7	15		07/09/12	2		0.765

Chemical composition

Cast No.	Alloy	Si(%)	Fe(%)	Cu(%)	Mn(%)	Mg(%)	Cr(%)	Zn(%)	Ti(%)	Esch(%)	Total(%)	Al(%)
Min		0.40	0.7	0.15	0.8	0.04						
Max		0.8	0.7	0.15	1.2	0.35	0.25	0.15	0.05	0.15		
VAST	6061	0.69	0.44	0.28	0.11	1.01	0.21	0.01	0.012	0.05	0.15	0.720

CONFIDENTIAL TO AGING RR 200 ASTM D62220 AHR 17774 AMS 20A-150214-02-1007

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding method of ASTM Practice E29, for Using Significant Digits in Test Data to Determine Conformance with Specifications.

WE HEREBY CERTIFY, THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIES WITH THE TERMS OF THE ORDER CONTRACT, THE INSPECTION RESULTS INDICATED IN THE CHEMICAL COMPOSITION HAVE BEEN OBTAINED FROM CAST ANALYSIS.

2-4 EASY-READ-OUT SERIAL NUMBER

Var 10.1

[View all posts by **John**](#) [View all posts in **Uncategorized**](#)

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TACHEN INTERNATIONAL, INC.

This MRK contains 1 page (page)



Kaiser Aluminum
Trentwood Works
Spokane, WA 99215-5108
(800) 367-2586

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER:		WORK PACKAGE:	CUSTOMER PART NUMBER:		PRODUCT DESCRIPTION:	
5400197766-20			ALFLR01581		HT Flat Sheet	
KAISER ORDER NUMBER:	LINE ITEM:	SHIP DATE:	ALLOY:	CLAD:	TEMPER:	
1160889	2	11/14/2013	2024	BARE	T3	
WEIGHT SHIPPED:	QUANTITY:	B/L NUMBER:	GAUGE:	WIDTH:	LENGTH:	
3293 LB	117 PCS EST.	2044959	0.0400 IN	48.000 IN	144.000 IN	
SHIP TO:	SOLD TO:					
COPPER & BRASS SALES 404 CENTURA COURT SPARTANBURG, SC 29303 US	COPPER & BRASS SALES ATTN: ACCOUNTS PAYABLE P.O. Box 5116 SOUTHFIELD, MI 48086 US					

MHU 1730227: LOT 663172A5: 117 pieces

Certified Specifications

AMS 4037/RevP AMS-QQ-A-250/4/RevA ASTM B 209/Rev10 CMMMP 019/RevD CMMMP 025/RevU

Test Code: 1504

Test Results:

LOT: 663172A5 CAST: 641 DROP: 27 INGOT: 3

Melted in USA
(ASTM E8/B557)
(EN 2002-1)

Tensile: Temper	Dir/#Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
T3	LT / 02 (Min:Max)	68.1 : 68.2 (470 : 470)	46.0 : 46.1 (317 : 318)	17.1 : 17.8

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.23	4.7	0.57	1.3	0.01	0.16	0.02	0.01	0.00	TOT 0.03

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
2024	MIN 0.00	0.00	3.8	0.30	1.2	0.00	0.00	0.00	0.00	0.00	MAX 0.05
	MAX 0.50	0.50	4.9	0.9	1.8	0.10	0.25	0.15	0.05	0.05	TOT 0.15

Aluminum Remainder

Plant Serial: 4315340

Kaiser Order Number: 1160889

Line Item: 2

Page 1 of 2

From: ThyssenKrupp Materials NA

Cust. THYSSENKRUPP MATERIALS NA - ECAD Del.: 2402984673

CstAr

Cstor 256039

Wgt.: 55.296 LB

Date 02/20/2014

John L. Gambotti



CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Kaiser Aluminum
Trentwood Works
Spokane, WA 99215-5108
(800) 367-2586

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC (Kaiser) hereby certifies that metal shipped under this order was melted in the United States of America or a qualifying country per DFARS 225.8/2-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.223 for domestic content. This material has been inspected, tested and found in conformance with the requirements of the applicable specifications as indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown hereon and chemical composition meets specification requirements. All metal which is solution heat treated complies with AMS 2772. Any warranty is limited to that shown on Kaiser's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of Kaiser Aluminum Fabricated Products, LLC laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law. ISO-9001:2000 certified.

JAMES HEMENWAY, LABORATORIES SUPERVISOR

Page 2 of 2

Plant Serial: 4315340
Kaiser Order Number: 1160889
Line Item: 2

From: ThyssenKrupp Materials NA
Cust. THYSSENKRUPP MATERIALS NA - ECAD Del.: 2402984673
CstAr CstOr 256039
Wgt.: 55.296 LB Date 02/20/2014

FORM: 1006

WORKORDER:

2402984673

COPPER AND BRASS SALES
MATERIAL TYPE
ALUMINIUM ALLOYS
PRODUCT DESIGNATION

2014 2024 2224 2324 7050 7075 7150 7175 7475 ALUMEC 89 ALUMEC 99 QC-7

"WARNING"

SMALL CHIPS, FINE TURNINGS AND DUST MAY IGNITE READILY. EXPLOSION POTENTIAL MAY BE PRESENT WHEN: DUST OR FINES ARE DISPERSED IN THE AIR; FINE, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES; OR, CHIPS, FINES, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE. KEEP AWAY FROM IGNITION SOURCE. USE EXPLOSION-PROOF VENTILATION. KEEP MATERIAL DRY.

THIS PRODUCT CONTAINS BERYLLIUM AND COPPER. INHALING BERYLLIUM DUST OR FUMES MAY CAUSE CHRONIC BERYLLIUM DISEASE (CBD), A SERIOUS CHRONIC LUNG DISEASE IN SOME INDIVIDUALS. BERYLLIUM IS A CANCER HAZARD; OVER TIME CBD AND CANCER CAN BE FATAL. TARGET ORGAN IS PRIMARILY THE LUNG. INHALING LARGE AMOUNTS OF COPPER, MAGNESIUM OXIDE, MANGANESE OXIDE, AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS. CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN; AND SKIN, TEETH, AND HAIR DISCOLORATION. CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE, SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES. TARGET ORGAN IS PRIMARILY THE LUNG, BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER. CHRONIC OVEREXPOSURE TO IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS. CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS. OVEREXPOSURE TO AMORPHOUS SILICA CAN CAUSE DRYING OF THE MUCOUS MEMBRANES OF THE EYES, NOSE, AND THROAT.

THIS PRODUCT ALSO CONTAINS NICKEL AND CHROMIUM COMPOUNDS. INHALATION OF NICKEL DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT AND CAUSE NASAL AND/OR LUNG CANCER. NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL HUMAN CARCINOGEN. EXPOSURE TO CHROMIUM DUST OR FUMES MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED, IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN. (CALIFORNIA PROPOSITION 65).

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE ALUMINIUM/ALUMINIUM ALLOYS MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

* If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use appropriate NIOSH approved respiratory protection (P95; P100 for lead with, quantitative fit testing required) if exposures exceed the permissible limits.

* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.

* Aluminum, in solid form and as contained in finished products presents no special health risk.

* Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48033, telephone 248-233-5600, or visit our web site @ www.copperandbrass.com.

2/2

ADITYA BIRLA HINDALCO INDUSTRIES LIMITED


Jeevan Deep Building, 1/1/2/3/4 Chanda Sen Sarani,
Kolkata-700071, India. Tel: +91-33-22402210
Fax: +91-33-22884808
Regd. Office: Century Bhawan, Dr. Annie Besant Road, Worli,
Mumbai - 400 028, INDIA.

Page 2 of 2

Date: 20-SEP-13

NAME OF THE PARTY : RYERSON CANADA INC., 161 THE WEST MALL, TORONTO, ONTARIO M3C4V8, CANADA.

PRODUCT : ALUMINUM SHEET.

QTY (MT) : 20.923

L/C/PO. & DATE : 64687167 DL. 30.08.2013

INVOICE NO : HXD/R/2014/72

COPY

QUALITY CERTIFICATE

Cast No.	Package No.	Alloy Temper	Mat. No. (Int)	Size (cm)	Coil Nos.	Cast No./Mat. No.
11	3C53086	AA5052, H32	1.485	2438 x 1219 x 2.03	H13HASH0805017	3C53086
12	3C52981	AA5052, H32	1.517	2438 x 1219 x 2.03	H13HASH0905018	3C52981
13	2D0192BD182	AA5052, H32	1.503	3048 x 1524 x 2.54	H13HASH0219010	2D0192BD182
14	2D0193A0185	AA5052, H32	1.505	3048 x 1524 x 2.54	H13HASH019011	2D0193A0185
Total:-			20.923			

CHEMICAL COMPOSITION (%)

Cast No.	Si	Mg	Al	Fe	Cr	Ti	N	Br	W	V	Sn	Others	Ram. Alum.
11 3C53086	.12	.15	.137	2.6	.003	0	0	.013	0	0	0	0	56.397
12 3C52981	.12	.15	.137	2.6	.005	0	0	.013	0	0	0	0	58.337
13 2D0192BD182	.125	.785	.041	2.613	.01	0	0	.02	0	0	0.055	0	56.297
14 2D0193A0185	.124	.301	.056	2.317	.016	0	0	.02	0	0	0.055	0	56.88

MECHANICAL PROPERTIES

OTHER TESTS

Cast No.	UTS (kg/mm ²)	YS (kg/mm ²)	% Elongation	Read Test		
11 3C53086	22.9	0	9.5	O T Satisfactory		
12 3C52981	22.4	0	10	O T Satisfactory		
13 2D0192BD182	22.2	0	10.6	O T Satisfactory		
14 2D0193A0185	22.6	0	11.8	O T Satisfactory		

Remarks:- (1) RYERSON PO NO.736670 (2) ISSUED BY THE MANUFACTURER.





ESSAR STEEL ALGOMA INC., 105 West Street, Sault Ste. Marie, Ontario, Canada P6A 7B4

SO No., Item & Date.: 8017177 000020 2014/01/09	Shipment No. & Date.: 1000083594 2014/01/10	TC No., Date & Time : ESA-128192 2014/01/12 - 08:41:14
Sold to Customer Name and Address : RYERSON INC FINANCIAL DRIVE 7525 BRAMPTON, Ontario, Canada L6Y 5P4	Ship to Customer Name and Address: RYERSON INC FINANCIAL DRIVE 7525 BRAMPTON, Ontario, Canada L6Y 5P4	Customer PO No./Item: 744385 / 2 BOL No.: 1000083594 Cust. Part No.: 7804-2405 Carrier : NATIONAL TRANSPORTATION - 1158A

Customer Specification : CR STEEL SHEET Carbon CQ / CS ASTM A1008 CS TY B (2012) Mark Number 7804-2405 Batch Annealed Top Semi Critical Surface Improved Shape Pickled Light Oiled Light Matte Finish Edge Sealant Required Std Thickness Tol

Supplementary Instructions : Test Cert 1:905-792-1617

Insp T/Bl : Chemical Analysis

Cust Use : AUTO IMPROVED SHAPE & SURF

ESSAR STEEL ALGOMA INC. HEREBY CERTIFIES THAT THE MATERIAL HEREIN DESCRIBED WAS MADE AND TESTED IN ACCORDANCE WITH THE RULES OF THE SPECIFICATION SHOWN. ALL RESULTS ARE RETAINED IN ACCORDANCE WITH THE COMPANY'S STANDARD RECORD KEEPING PRACTICES.
THIS MILL TEST REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF ESSAR STEEL ALGOMA INC. IF YOU RECEIVE THIS DOCUMENT AND ARE NOT THE INTENDED RECEIVER, PLEASE CALL (705)945-4095 FOR INSTRUCTIONS ON METHOD OF DISPOSAL OF DOCUMENT.

MEETS EN 10204 3.1

ISO QUALITY AND ENVIRONMENTAL CERTIFICATES AVAILABLE AT WWW.ESSARSTEELALGOMA.COM

ALL HEATS FULLY KILLED.

HEATS INDICATED WITH (*) FINE GRAINED.

HEATS INDICATED WITH (+) MADE IN CANADA WITH DOMESTIC AND NORTH AMERICAN MATERIALS.

Dimensions (T x W x L)	Batch No.	Heat No-MS	Quantity	Pcs
0.0440 " x 48.000 "	SAM9918B	3683T3-51	21,740 LB	1

CHEMICAL PROPERTIES															
Heat No. (Wt%)	C	Mn	P	S	Si	Cr	Ni	Cu	Mo	Al	Nb	V	B	Ti	N
3683T3 ⁺	0.04	0.26	0.003	0.007	0.020	0.01	0.01	0.01	0.00	0.035	0.000	0.000	0.0000	0.001	0.0033

K. UGHADPAGA

MANAGER METALLURGICAL SERVICES

WARNING THE TEST RESULTS AND VALUES REPORTED HEREIN INDICATE ONLY THAT (1) THE PARTICULAR STEEL FOR WHICH THIS CERTIFICATE IS ISSUED MEETS THE MINIMUM SPECIFIED YIELD STRENGTH AND (2) THE ANALYSIS AND PHYSICAL PROPERTIES OF SUCH STEEL ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE SPECIFICATION INDICATED. THE RESULTS OR VALUES REPORTED HEREIN CAN NOT BE USED TO QUALIFY THE STEEL FOR ANY SPECIFICATION OTHER THAN THE ONE INDICATED AND CAN NOT BE RELIED UPON FOR ANY PURPOSE (INCLUDING DESIGN OR CALCULATIONS) AS REPRESENTING THE ACTUAL STRENGTH OF SUCH STEEL.

THYSSENKRUPP MATERIALS NA

PO/Ref

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-000000-000

Pg 1/1

Signed by:

Attn: RICK

PART NO.

NO. 0465

MATERIAL

FEB. 28, 2014 3:46PM

产品质量证明书

MATERIAL TEST CERTIFICATE

无锡宝昌金属制品有限公司

Wuxi Baichang Metal Products Co., Ltd

PAGE 2 OF 2

单号: EX1309301GS
Order No.
货方: GLOBAL STAINLESS STEEL INC.
买方: GLOBAL STAINLESS STEEL INC.
用厂: GLOBAL STAINLESS STEEL INC.
ONSIGNEE

品名: STAINLESS STEEL SHEETS,
Commodity SLIT EDGE
标准: ASTM A240/A240M
Specification:

牌号: 304
Type
表面加工: 2B
Surface Finish
编号: EX1309301
Invoice No.
发行日期: 2013-10-26
Date

料号 No.	货物编号 Product No.	产品尺寸 Product Size			数量 Number	重量 Kg	拉伸试验 Tensile Test			表面 硬度 HRB	炉批号 HEAT NO.	化学成分 Chemical Composition (%)										
		厚度 MM	宽度 MM	长度 MM			屈服强度 0.2% YS N/mm ²	抗拉强度 TS N/mm ²	延伸率 EL %			C Si Mn P S Ni Cr N										
12	13102612	0.6096	1219.2	2438.4	118	1612	250	690	57	83	A1303883	0.0400	0.390	1.1300	0.0350	0.0010	8.0200	18.120	0.0400			
13	13102613	0.6096	1219.2	2438.4	118	1616	250	690	57	83	A1303883	0.0400	0.390	1.1300	0.0350	0.0010	8.0200	18.120	0.0400			
14	13102614	0.7620	1219.2	2438.4	88	1644	271	665	58	89.5	A1303883	0.0400	0.390	1.1300	0.0350	0.0010	8.0200	18.120	0.0400			
15	13102615	0.7620	1219.2	2438.4	87	1626	271	665	58	87	A1303987	0.0400	0.390	1.1000	0.0330	0.0010	8.0200	18.160	0.0400			
16	13102616	1.2192	1219.2	2438.4	54	1494	267	695	55	87	A1303987	0.0400	0.530	1.1000	0.0330	0.0010	8.0200	18.160	0.0400			
17	13102617	1.2192	1219.2	2438.4	50	1378	267	695	55	87	A1303987	0.0400	0.530	1.1000	0.0330	0.0010	8.0200	18.160	0.0400			
18	13102618	1.2192	1219.2	3048	42	1460	267	695	55	87	A1303987	0.0400	0.550	1.1000	0.0330	0.0010	8.0200	18.160	0.0400			
19	13102619	1.2192	1219.2	3048	45	1574	267	695	55	87	A1303988	0.0400	0.430	1.1300	0.0380	0.0010	8.0300	18.230	0.0300			
20	13102620	1.5240	1219.2	2438.4	43	1485	271	680	52	87	A1303988	0.0400	0.430	1.1300	0.0380	0.0010	8.0300	18.230	0.0300			
21	13102621	1.5240	1219.2	2438.4	43	1487	271	680	52	87	A1303988	0.0400	0.430	1.1300	0.0380	0.0010	8.0300	18.230	0.0300			
22	13102622	1.9050	1219.2	2438.4	40	1725	268	630	55	84	A1304006	0.0300	0.440	1.1500	0.0380	0.0010	8.1000	18.250	0.0400			
23	13102623	1.9050	1219.2	2438.4	41	1755	268	650	55	84	A1304006	0.0300	0.440	1.1500	0.0380	0.0010	8.1000	18.250	0.0400			
24	13102624	3.0480	1219.2	3048	17	1482	288	675	54	84	A1303883	0.0400	0.390	1.1300	0.0350	0.0010	8.0200	18.120	0.0400			
25	13102625	3.0480	1219.2	3048	19	1656	280	675	54	84	A1303883	0.0400	0.390	1.1300	0.0350	0.0010	8.0200	18.120	0.0400			

备注 (Remarks):
1. 尺寸和表面: 合格
Size and Surface: Guaranteed

兹证明所列产品均符合订单和标准的制造要求
WE HEREBY CERTIFY THAT THE MATERIAL HEREIN
HAS BEEN MADE IN ACCORDANCE WITH THE ORDER AND
SPECIFICATION
*此报告仅可完全复制
*The report can only be copied completely

技术本部
TECHNICAL DEPT.

无锡宝昌金属制品有限公司
WUXI BAICHANG METAL PRODUCTS CO., LTD.

FEB. 28, 2014 3:45PM MATERIAL

THYSSENKRUPP MATERIALS NA

NO A465 P. 1

Certificate of Mill Test Results

31 2-44
31 315-00000-000

Pg 10

PART NO.

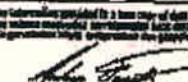
30/48

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Am: RICK

١٩٤٦

Manufacturer / Entwickler / Hersteller: ThyssenKrupp	Type of Product / Type of Component / Art des Produktes/Teile: INSPECTION CERTIFICATE CERTIFICADO DE INSPECCION ARMAH/HEYDRODURUMS according to / de acuerdo con / nach EN 10204-3.1	Document Number / F-Dokument-Nr. 0000032224 /							
ThyssenKrupp Stainless USA		Page / Página / Seite: 1 / 1							
<p>1 ThyssenKrupp Drive; P.O. Box 15000; Calera, AL 35063-1500</p> <p>QUEBET METALS SALES LIMITED 989 DERRY ROAD EAST SUITE 306 MISSISSAUGA, ON L5T 2J5 CANADA</p> <p>Phone/Fax/Email / Teléfono/Fax/E-Mail: ASTM A240/A240P, ASME SA-240 BELL Part A Ed.2010 ASTM A240/A240P, ASME SA-240 Ed. Part A Ed.2010</p>		Customer/Client / Cliente / Kunden/ OLBERT METALS SALES LIMITED, MISSISSAUGA, Customer Ref. Number / Número del Pedido Cliente/Kunden-Nr.: TO-1846 Manufacturer's Identification / Nº de Pedido Fabricante / Hersteller-Nr.: 001147789 / 601 Delivery Address / Dirección de Envío / Lieferanschrift: 85026223 / 010 Plant / Fabrica / Druckerei: SHEETMETALS GMBH							
<p>Product Description / Descripción del Producto / Produktbeschreibung: Carbon steel plate X 31N Steel Grade Thickness: 12 mm Dimensions: 3,05 mm x 1,219,28 mm x 2,458,40 mm 0,1200 inch x 48,0000 inch x 96,0000 inch</p>		Steel grade and Quality / Acero / Härteklasse und Gütekriterien: TYPE 304L/304							
Customer's reference no./ X 31N Steel Grade Thickness: 12 mm		Thickness specification/ Fechura de espesor/ Dicke:							
3,05 mm x 1,219,28 mm x 2,458,40 mm 0,1200 inch x 48,0000 inch x 96,0000 inch		A00							
Quality/Qualität/ Härteklasse/ Referenz-Nr.	Heat Number/ Número de fundición/ Schmelzen-Nr.	Call Ref. / Número de fundición/ Schmelzen-Nr.	Non Ref. / Número de fundición/ Schmelzen-Nr.	Stamp Ref. / Número de fundición/ Schmelzen-Nr.	Stamp Ref. / Número de fundición/ Schmelzen-Nr.				
G061810	32	4,490 kg / 2,218 lbs	713000	850420	1000065630				
G061811	32	4,086 kg / 2,216 kg	713000	350420	1000065632				
Mass/Kilos / Gewicht:	54	8,776 kg / 4,834 kg							
Test / Prueba / Prüfung	Category/Clase / Categoría/Clase / Kategorie/Gruppe	Chemical composition / Composición Química / Zusammensetzung							
350420	ATA	% C	% Si	% Mn	% P	% S	% Cr	% Ni	% Ni
		0.026	0.50	1.56	0.027	0.0018	16.05	8.00	0.060
Safety Position/ Localización de posicion/ Position:	TRANSVERSE								
Inspection ref/ Número Inspección/ Referenz-Nr.:	VSM-2%	T8 PSI / MPa	EL-A2V %	HRC					
1000065630	45,400 / 302	33,113 / 642	35.9	42					
1000065632	43,046 / 302	33,113 / 642	34.1	32					
Comments/Comentarios / Notas de Mercado / Weitere Anmerkungen:									
Type of Metal / Material / Material / Metallart:									
Test of Mercury (Mercury analysis) / Control de Mercurio (análisis de mercurio) / Testaufnahme/Merkur (Mercury Analysis):									
No lead reports									
No Inorganic addition of Mercury compounds were made or used									
Free of radioactive contamination									
EU RoHS Directive 2002/95/EC Compliant									
Comply of Heat as per ISO 35.05-1									
Signature of the document / Clípse de la persona que firmó / Aussteller der Zeichnung:									
 Andrej Pollock Andrej Pollock Phone: +1 201 520 3402									
The information provided is true and correct to the best of my knowledge and belief. Any action resulting from this document is at the sole responsibility of the customer. Die Informationen hierin sind wahrhaftig und korrekt. Die Verantwortung für die Auswirkungen dieses Dokuments liegt allein bei dem Käufer.									
Name of Authorizing authority / Autoridad de autorización / Autoridad de autorización:									
ThyssenKrupp Stainless USA, LLC An ISO 9001:2008 certified company									
Certified by authorized representative / Certificado por el representante autorizado / Ausgestellt durch den zertifizierten Vertreter:									
Date of report / Fecha de informe / Datum des Berichts:									
12/12/2012									